RICOH

PS Driver for Universal Print

Technical Reference

Ver. 1.7.0

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Version history

Version	Issue Date	Revisions
1.0.0	Feb. 18th, 2009	Initial release
1.1.0	Mar. 30th, 2009	Added ports to the “Supported Ports > Specifications” section. Added “User Interface” to the “Specifications” section. Added models to the “Models > Specifications” section. Added “Notes” section.
1.2.0	June 16th, 2009	Added models to the “Models > Specifications” section. Added a “Note” to the “Supported Ports > Specifications” section. (The functionality described in the note has been supported since PS driver for Universal Print v1.00.00 but was not clearly stated in former versions of this document.) Added information about the effect of “Bi-directional communication” on tray status. (The information added is not new. It has been part of the PS driver for Universal Print specification since v1.00.00. However, it was not clearly stated in former versions of this document.)
1.3.0	Aug. 17th, 2009	Renamed “Models” section to “Supported Models”. Added models to the “Supported Models > Specifications” section. Deleted “Aficio MP 1500” from the “Supported Models > Specifications” section.
1.4.0	Nov.13th, 2009	Added Windows 7/2008 R2 to the “> Supported Operating Systems > Specifications” section. Added PrinterSwitcher Port to the “Supported

		Ports > Specification” section. Added models to the “Supported Models > Specifications” section. Added the “Generic Model” section. Added “PrinterSwitcher” section.
1.5.0	Feb. 19th, 2010	Added supported models to the “Supported Models > Specifications” section. Added supported models to the “Generic Model” section.
1.6.0	May 19th, 2010	The PS Driver for Universal Print version is now v.3.20.00. (No new functions or supported models have been added)
1.7.0	Sep. 13th, 2010	Added Aficio SP C430DN/C431DN to the “Supported Models > Specifications” section. Added Aficio SP C430DN/C431DN to the “Generic Model” section. Modified the “Upgrading the driver” procedure. Modified the “Upgrading the driver” section. Added “Uninstalling the driver” section. Added “Disabling bi-directional communication” section. Added “Economy Color” section.

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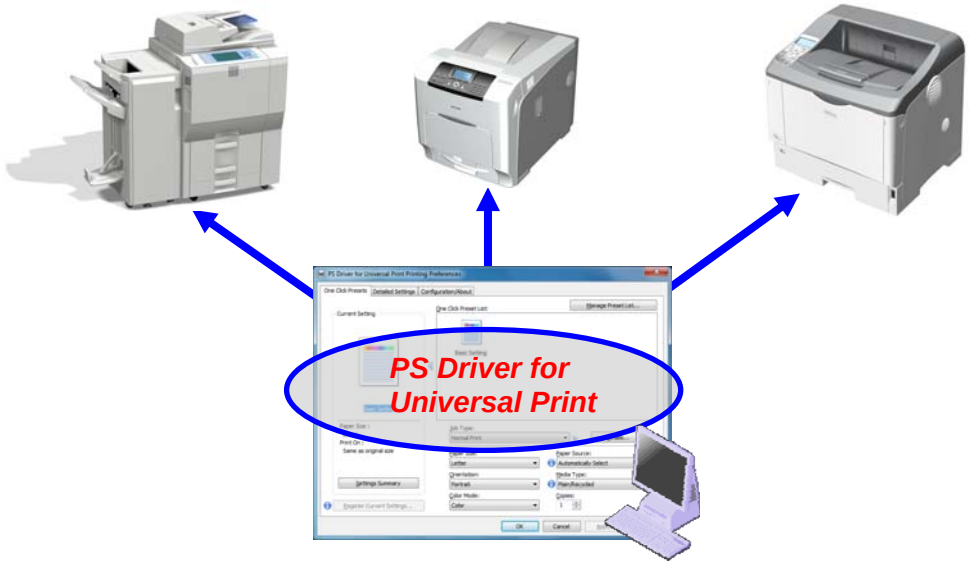
Introduction

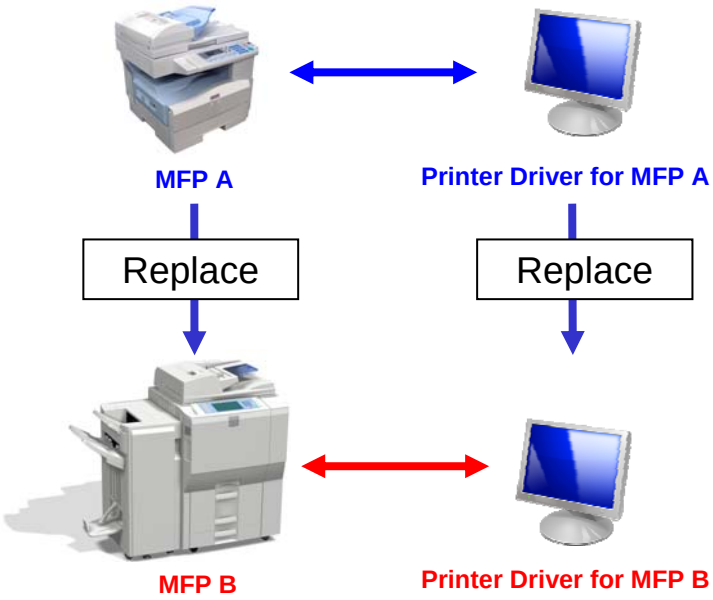
The PS Driver for Universal Print is not model-specific. However, the functions shown in the interface will be tailored to the connected device.



Benefits

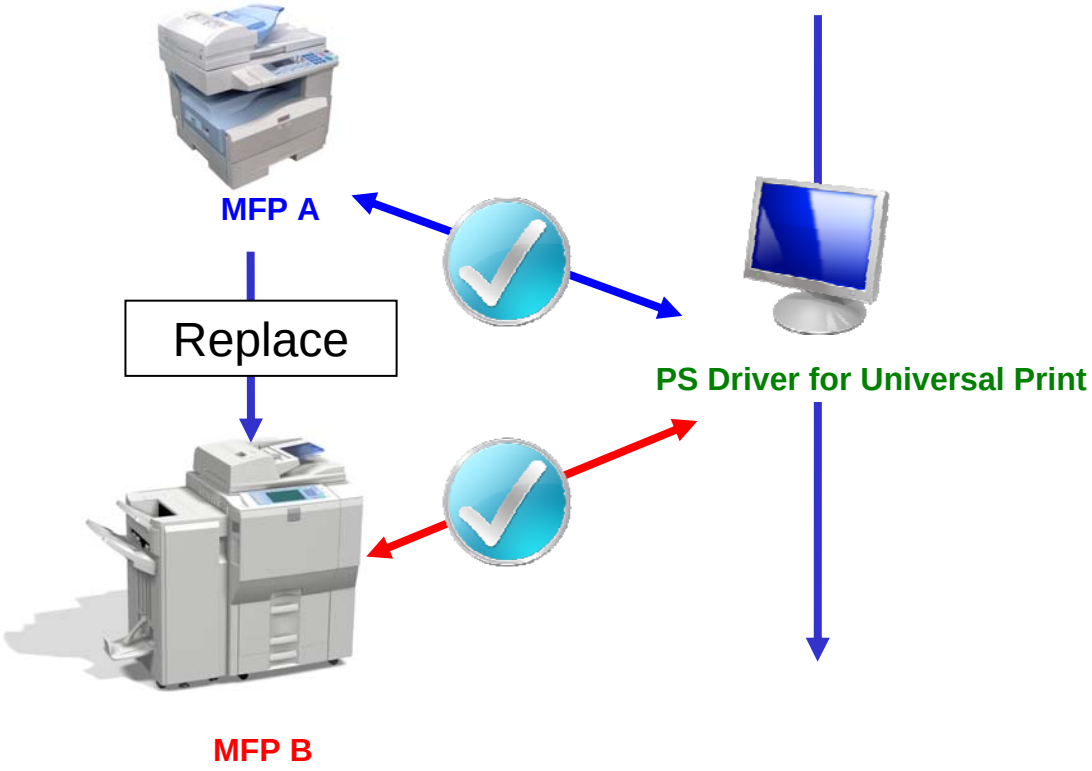
Without PS Driver for Universal Print

- Device replacement:
  - Re-install printer drivers.
  - Re-evaluate the whole system and re-check the installed driver's compatibility with the new MFP/LP.
  - Retrain users/operators.



With PS Driver for Universal Print

- Using the Universal Driver, replacement is much simpler:
  - Re-installation is not required.
  - Less intensive evaluation of the system (already evaluated when MFP A was installed).
  - Minimal retraining (new device-features only).

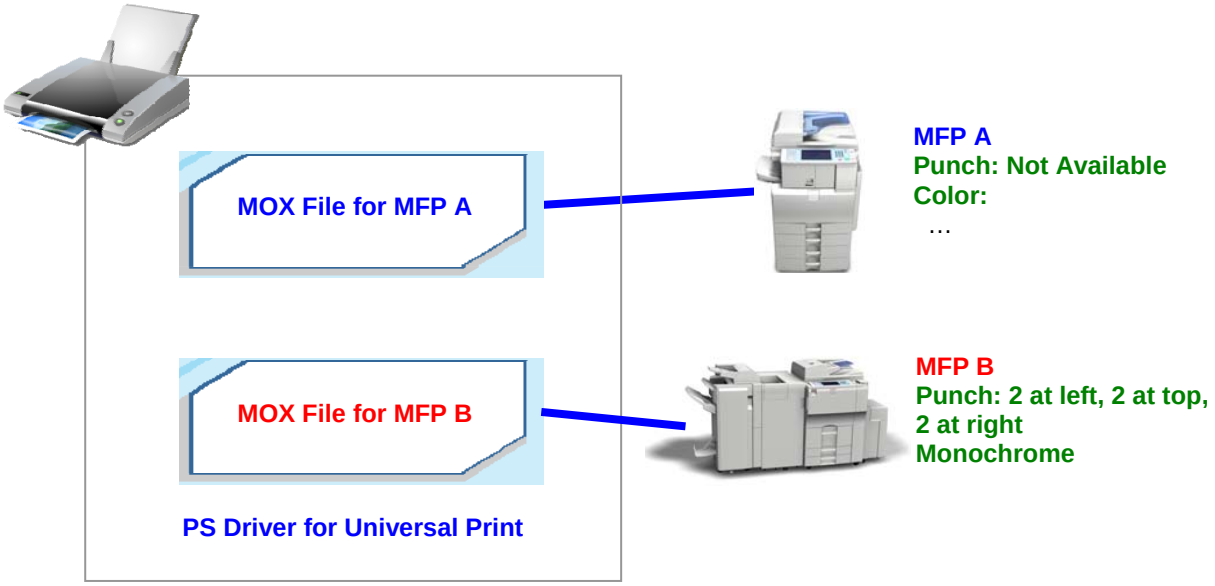


Architecture

MOX Files

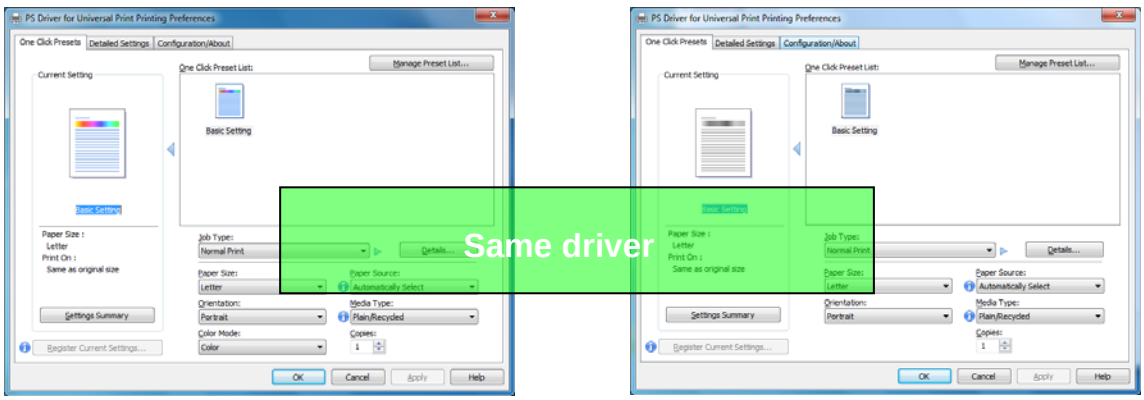
These files contain information about a specific device or option. MOX files are what allow the PS Driver for Universal Print U/I to offer the correct functions for the connected device.

When connected to a device, the appropriate MOX file is loaded based on the plug and play name. The plug and play name is retrieved via bi-directional communication.



Example of the interface displayed when connected to a color device, and to a monochrome device.

Color Model **Monochrome Model**



Specifications

PDL

PostScript

Operating Systems

Operating System	Support
Windows 2000 Professional	Yes
Windows 2000 Server	Yes
Windows 2000 Advanced Server	Yes
Windows XP Home Edition	Yes
Windows XP Professional Edition	Yes
Windows XP Media Center Edition	Yes
Windows XP Tablet PC Edition	Yes
Windows XP Professional x64 Edition	Yes
Windows Server 2003, Standard Edition	Yes
Windows Server 2003 R2, Standard Edition	Yes
Windows Server 2003, Enterprise Edition	Yes
Windows Server 2003 R2, Enterprise Edition	Yes
Windows Server 2003, Standard x64 Edition	Yes
Windows Server 2003 R2, Standard Edition	Yes
Windows Server 2003, Enterprise x64 Edition	Yes
Windows Server 2003 R2, Enterprise x64 Edition	Yes
Windows Vista Home Basic	Yes
Windows Vista Home Premium	Yes
Windows Vista Business	Yes
Windows Vista Enterprise	Yes
Windows Vista Ultimate	Yes
Windows 7 Homer Premium (x86, x64)	Yes*2
Windows 7 Professional (x86, x64)	Yes*2
Windows 7 Enterprise (x86, x64)	Yes*2
Windows 7 Ultimate (x86, x64)	Yes*2
Windows Server 2008 Standard	Yes
Windows Server 2008 Enterprise	Yes
Windows Server 2008 R2, Standard (x64)	Yes*2
Windows Server 2008 R2, Enterprise (x64)	Yes*2
Novell Netware	Yes*1

*1: Novell iPrint is supported.

*2: PS Driver for Universal Print version 3.0.0.0 or later only.

- IA64 is not supported.
- The driver is supported for use in server clusters.
- Citrix XenApp 5.0, Citrix Presentation Server 3.0 (32bit), 4.5 (32bit, 64bit) are supported.

Supported Ports

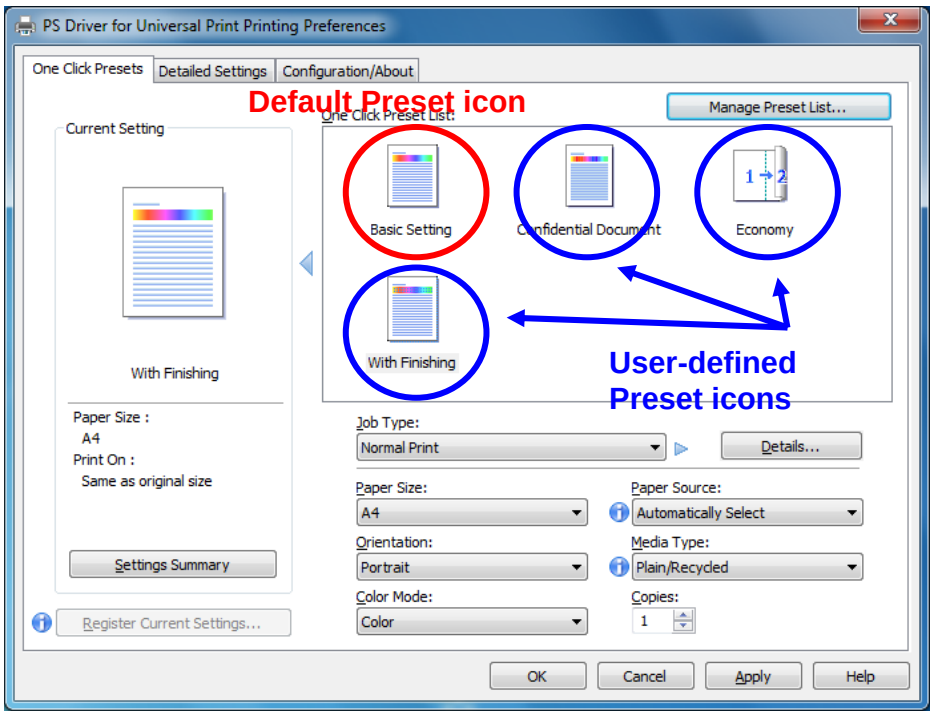
Standard TCP/IP Port (IPv4:RAW Protocol)
Standard TCP/IP Port (IPv4: LPR Protocol) (PS Driver for Universal Print v1.10.00 or later)
PrinterSwitcher port (PS Driver for Universal Print version 3.00.00 or later only)

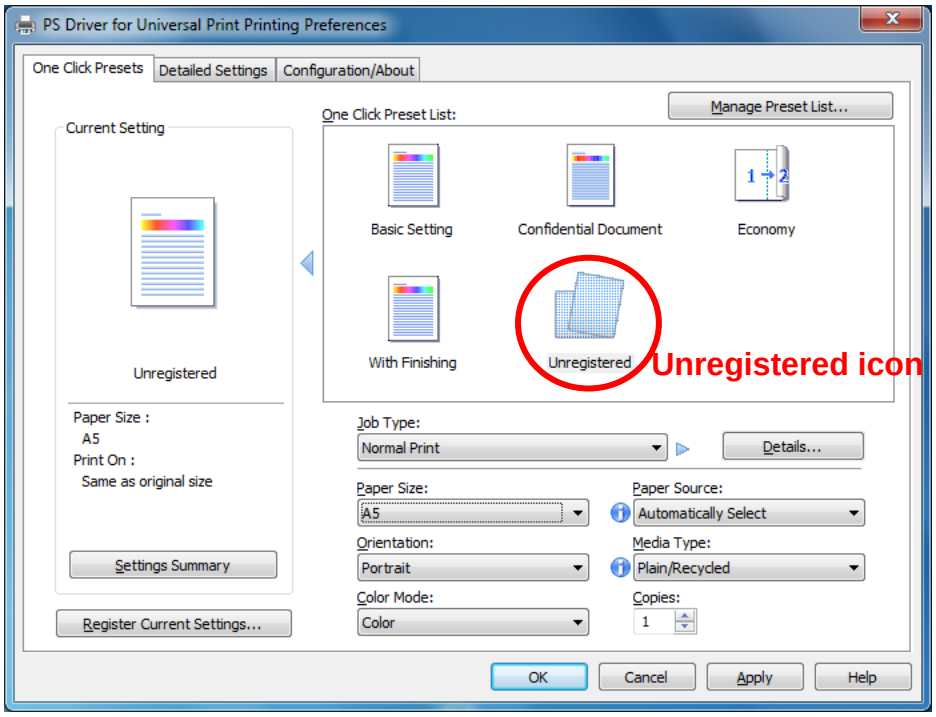
> **Note**
>
> The SNMP community name used by Standard TCP/IP ports is “public” but can be changed.

User Interface

PS driver for Universal Print has ‘One Click Preset’ icons for ease-of-use. These can be used to store sets of frequently used settings:

- Default Preset icon (Basic Setting)
  - This is created upon installation of the driver and contains the PS driver for Universal Print’s default settings.
- User-defined Preset icons
  - Users can add/remove preset icons as necessary.
- Unregistered icon
  - This temporary icon stores any changes made to the settings of the currently selected One Click Preset icon.





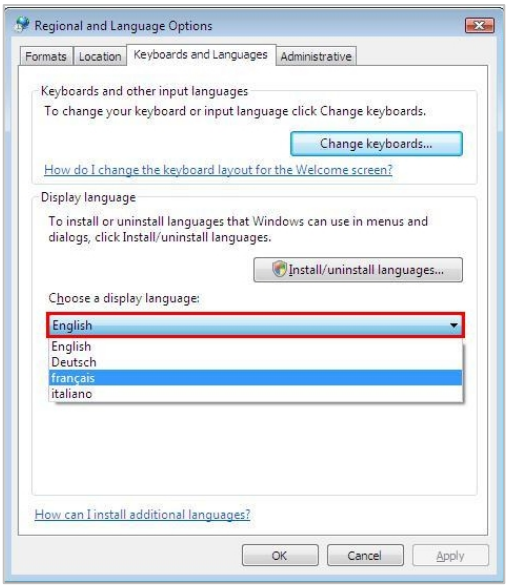
Note

One Click Presets cannot be inherited by Point and Print clients. The driver will be installed on these clients with only the default One Click Preset.

Languages

English, French, German, Italian, Spanish, Dutch
The PS Driver for Universal Print automatically selects the language specified in Regional and Language Options.

Eg. Windows Vista: Keyboards and Languages tab



Microsoft Certification

PS Driver for Universal Print has WHQL certification.

Supported Models (PS Driver for Universal Print ver. 3.3.0.0)

69 MFPs:

Aficio 2051/2060/2075,

Aficio 3025/3030,

Aficio 3035/3045,

Aficio 3224C/3232C,

Aficio 3228C/3235C/3245C,

Aficio 3260C,

Aficio Color 5560,

Aficio MP 161,

Aficio MP 171,

Aficio MP 1600/2000,

Aficio MP 2500,

Aficio MP 2510/3010,
Aficio MP 2550(B)/3550(B),
Aficio MP 2851/3351,
Aficio MP 3500/4500,
Aficio MP 4001/5001,
Aficio MP 4000(B)/5000(B),
Aficio MP 5500/6500/7500,
Aficio MP 6000/7000/8000,
Aficio MP 6001/7001/8001/9001,
Aficio MP 9000/1100/1350,
Aficio MP C1500/ 615C,
Aficio MP C2000/C2500/C3000,
Aficio MP C2050/C2550,
Aficio MP C2800/C3300,
Aficio MP C3500/C4500,
Aficio MP C4000/C5000,
Aficio MP C6000/C7500,
Aficio MP C6501/C7501,
Aficio MP W2400/W3600,
Pro 906EX/1106EX/1356EX,
Pro 907EX/1107EX/1357EX

26 LPs:

Aficio SP 4210N,
Aficio SP C400DN,
Aficio SP C410DN/C411DN/C420DN,
Aficio SP C430DN/C431DN,
Aficio SP C811DN,
Aficio SP C820DN/821DN,
Aficio SP 4100N(L)/4110N,
Aficio SP 6330N,
Aficio SP 8100DN,

Aficio SP 8200DN,

Aficio SP 9100DN,

Aficio SP W2470,

Aficio AP 410/410N,

Aficio AP 610N,

Aficio AP900,

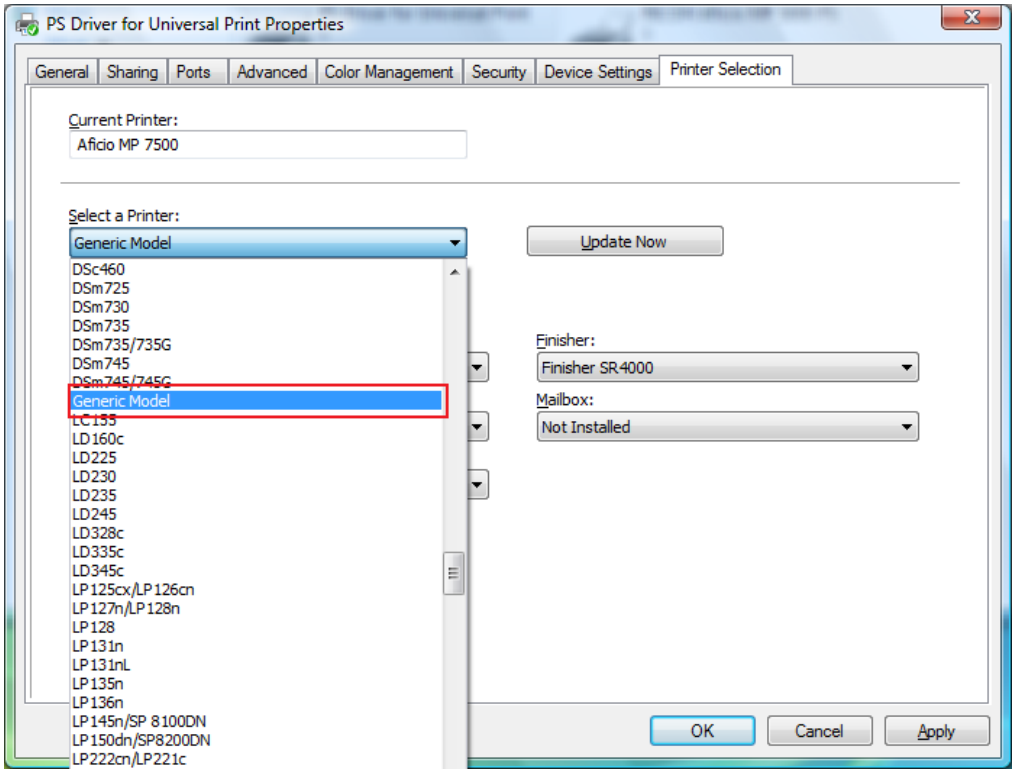
Aficio CL 3500N,

Aficio CL 4000DN/4000HDN,

Aficio CL 7200, Aficio CL 7300

Generic Model

In addition to the officially supported models listed above, other models can be used with the PS driver for Universal Print. If the PS driver for Universal Print is connected to a device that is not in the list, the “Generic Model” setting can be used to provide basic functionality. The Generic Model U/I will contain only functions that are commonly supported by most Ricoh models. Though the Generic Model setting can be used with unsupported models, we only provide official support for certain models. These are listed later in the next section of this document.



Models Supported by “Generic Model”

Although, the Generic Model setting is intended for printing from unsupported models, use of “Generic Model” with the following models is officially supported.

26 MFPs:

Aficio MP 171,
Aficio MP 2550(B)/3350(B),
Aficio MP 2851/3351,
Aficio MP 4000(B)/5000(B),
Aficio MP 4001/5001,
Aficio MP 6001/7001/ 8001/9001,
Aficio MP C2050/C2550,
Aficio MP C2800/C3300,
Aficio MP C4000/C5000,
Aficio MP C6000/C7500,
Aficio MP C6501/C7501,
Pro 907EX/1107EX/1357EX

7 LPs:

Aficio SP 6330N,
Aficio SP 8200DN,
Aficio SP C420DN,
Aficio SP C430DN/C431DN,
Aficio SP C820DN,
Aficio SP C821DN

Enhanced Locked Print NX FlexRelease Server

The PS driver for Universal Print’s standard U/I cannot be used with Enhanced Locked Print NX FlexRelease Server. In order to submit jobs to ELP NX FS, the PS driver for Universal Print must use the “Generic Model” interface.

Information about Enhanced Locked Print NX FlexRelease Server, can be found here:

Ricoh Americas: Enhanced Locked Print NX (ELP-NX)
http://www.ricoh-usa.com/solutions/solution_features.asp?pCategoryId=76&pCatName=Output+%26+Security&tsn=Ricoh-USA&pSubCategoryId=77&pSubCatName=Print+Security&pProductId=1327&pProductName=Enhanced+Locked+Print+NX

Ricoh Europe: Enhanced Locked Print NX FlexRelease Server
http://www.ricoh-europe.com/products/output-management-and-security/s_flex_release_server.jsp

Installing and Unistalling the driver

Installing the driver:

Please close all applications before installing the PS Driver for Universal Print.

1. Start Windows and log on as an Administrator or Power User.

2. After downloading the driver from the Internet, extract the files to any folder.

3. Select “Printers and Faxes” > “Add Printer”

4. Follow the Wizard guidance and select “Local printer attached to this computer”. Click "Next >" to continue.

5. Select “Have Disk” and then browse to the folder where the driver was extracted in step 2. The needed *.inf file is in the “Disk 1” folder.

6. Select the printer model and click "Next >".

7. Name the printer.

8. Make the printer default if necessary.

9. Share the printer if necessary.

10. We recommend printing a test page to confirm that the printer is set up properly.

11. Installation of the PCL6 Driver for Universal Print is complete.

Notes for the installation

- Only one version of the PS Driver for Universal Print should be installed on the system at one time. If more than one version of the driver is installed on the system, problems will likely occur.
- During the driver installation, Windows may suggest keeping a newer file already installed in Windows. In such a case, please select "Yes".

Upgrading the driver

Please close all applications before upgrading the PS Driver for Universal Print to the latest version.

1. Open the "Printers" folder (or "Printers and Faxes") from the "Start" menu or "Control Panel".
2. Open the Properties of the printer to be upgraded.
3. Advanced tab > New Driver button > Next button.
4. Select "Have Disk..." then browse to the folder containing the extracted printer driver INF file. Click Open.
5. Click OK and select the printer model. Click Next.
6. Once the installation is complete, click Finish.
7. Click OK to close the Printer Properties dialog box.
8. Log the current user account off.

Upgrading an x86 driver installed as an "Additional Driver" on an x64 system (and vice versa)

To replace an x86 print driver on an x64 server (and vice versa), the following should be done:

1. Open the Devices and Printers folder.
2. Select any print queue and open the Print Server Properties window.
3. Select the "Drivers" tab.
4. Remove the x86 PS driver for Universal Print driver files.
5. Select "Remove driver only" and click OK.
6. Click "Add" to install the new version of the x86 PS driver for Universal Print.

Notes for upgrading

If upgrading from an earlier version of the driver (Ver.1.00.00 - Ver.3.10.00), the upgrade procedure might result in changes to the values configured for settings such as input tray and paper type.

Uninstalling the driver

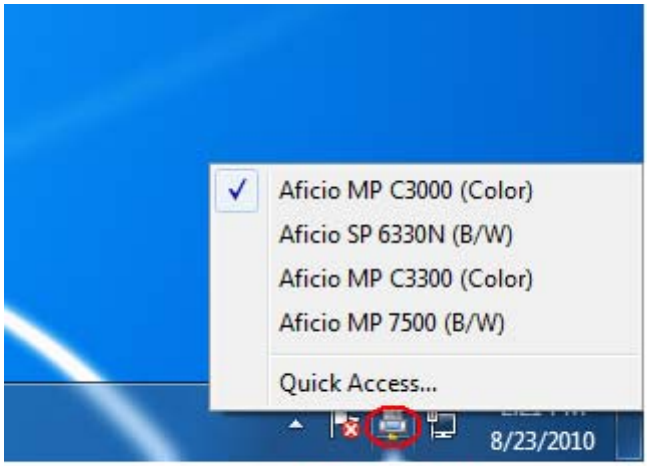
Please close all applications before uninstalling the PS Driver for Universal Print.

1. Open the "Printers" folder (or "Printers and Faxes") from the "Start" menu or "Control Panel".
2. Delete the printer icon corresponding to the driver that is to be uninstalled.
3. File > Server Properties > Driver tab.
4. Select the driver to be uninstalled.
5. Press the Delete key.
6. Log the current user account off.

PrinterSwitcher

Overview

PrinterSwitcher is a utility used in conjunction with a universal driver. It can automatically search and add available printing devices from the network, making them immediately available for printing. These added devices appear in a list of available devices presented to users when printing. This utility can be downloaded from the Ricoh website:



Task Tray

Specifications

Language:
- Displays English only but will run on a Windows OS of any language

Supported Operating Systems:
- Windows 2000/XP/Vista/7 (x86/x64)
- Windows Server 2000/2003/2008(x86/x64), 2008 R2(x64)

Unsupported:
- Point and Print
- Meta Frame / Citrix Presentation Server
- Terminal Services
- Remote Desktop
- Fast User Switching

Notes

Point and Print

Point and Print is a Microsoft function that makes it possible for clients to access and install shared printers. The server's driver settings will be retrieved from DEVMODE and inherited by the client. However, settings that are not stored in DEVMODE will not be inherited by the client.

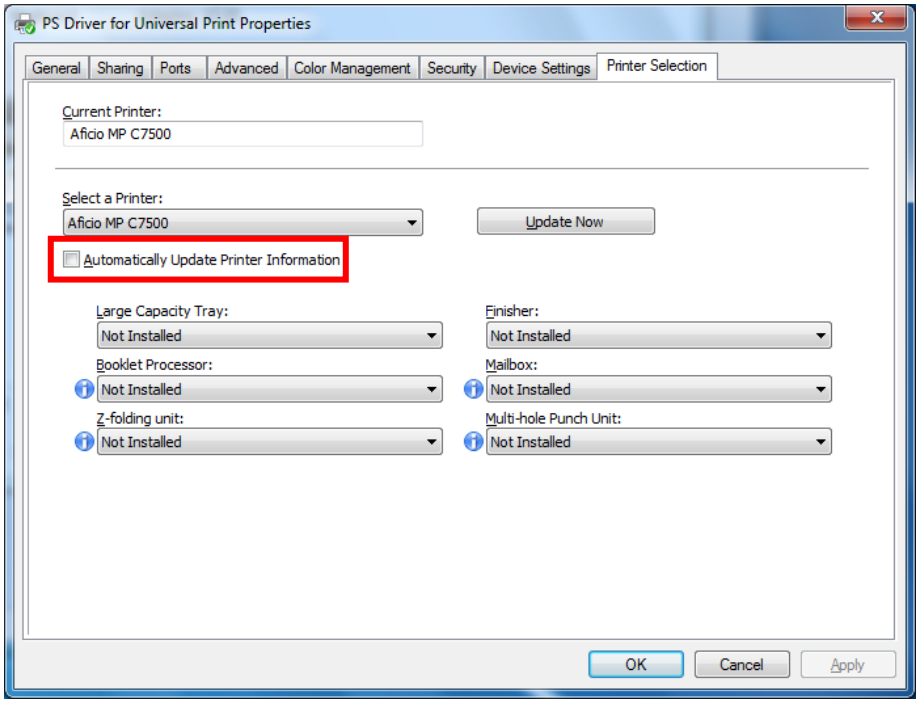
The following settings are not stored in DEVMODE:

- One Click Preset icons

Bi-directional communication

Disabling Bi-directional communication

By default, PS Driver for Universal Print will automatically establish bi-directional communication with the connected device. This allows the driver to automatically determine which options have been installed and which U/I to display to users. However bi-directional communication might not be necessary for users that always connect to the same device. Such users might prefer to disable bi-directional communication in order to reduce network traffic and increase driver response time. To disable bi-directional communication, please uncheck "Automatically Update Printer Information" in the Printer Selection tab.



Notes

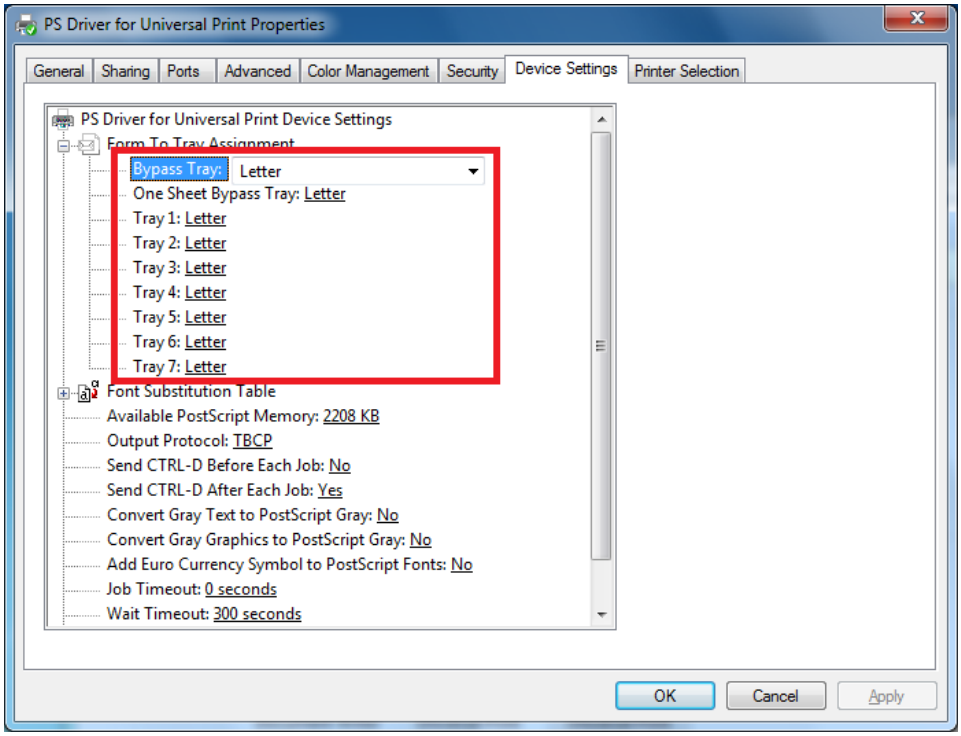
Even if “Automatically Update Printer Information” is unchecked, bi-directional communication can be established manually using the “Update Now” button.

- If bi-directional communication is not established (either manually or automatically), the driver’s U/I will not change when the device to which it is connected changes.

- We do not recommend unchecking “Automatically Update Printer Information” if the driver is to be used with PrinterSwithcher. Doing so could result in unexpected driver behaviour and print output.

Form to Tray Assignment

Paper sizes in “Form to Tray Assignment” will not be updated by bi-directional communication.



Economy Color

“Economy Color” is a function that reduces the amount of toner used when printing. Some devices such as the Aficio SP C430DN/C431DN support this functionality. The “Economy Color” setting is called “Print Mode” on the PS Driver for Universal Print’s settings screen.